

MICHAEL A. JACOBS (CA SBN 111664)  
WESLEY E. OVERSON (CA SBN 154737)  
FREDERICK S. CHUNG (CA SBN 183337)  
DAVID E. MELAUGH (CA SBN 219477)  
MORRISON & FOERSTER LLP  
425 Market Street  
San Francisco, California 94105-2482  
Telephone: (415) 268-7000  
Facsimile: (415) 268-7522

Attorneys for Defendant  
SABA SOFTWARE, INC.

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

IP LEARN, LLC,  
Plaintiff,  
v.  
SABA SOFTWARE INC.; and DOES 1-10,  
Defendant.

No. C 02-02634 JW

**SABA SOFTWARE, INC.'S  
RESPONSIVE BRIEF ON THE  
SECOND CLAIM  
CONSTRUCTION OF IP LEARN'S  
PATENTS**

Date: July 31, 2003  
Time: TBA  
Judge: Hon. James Ware  
Courtroom: 8, 4th Floor

**TABLE OF CONTENTS**

	<b>Page</b>
TABLE OF AUTHORITIES.....	ii
INTRODUCTION.....	1
ARGUMENT .....	1
I. SABA’S CONSTRUCTION OF THE DISPUTED TERMS .....	1
A. “Relationship Rules” .....	1
B. “Pre-requisite Rules” .....	3
C. “Inference Engine” .....	4
D. “Pre-requisite Analyzer” .....	4
E. “Subject-specific” .....	5
F. “Analyzing the student’s prior-to-the-latest and latest test results” .....	5
G. “Complexity-hierarchy” .....	6
II. PREAMBULAR LANGUAGE .....	7
CONCLUSION .....	10

**TABLE OF AUTHORITIES**

**Page**

**CASES**

<i>Bell Communications Research, Inc. v. Vitalink Communications Corp.</i> , 55 F.3d 615 (Fed. Cir. 1995).....	7
<i>Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.</i> , 289 F.3d 801 (Fed. Cir. 2002).....	7
<i>Northern Telecom Ltd. v. Samsung Elecs. Co.</i> , 215 F.3d 1281 (Fed. Cir. 2000).....	6
<i>Pitney Bowes, Inc. v. Hewlett-Packard Co.</i> , 182 F.3d 1298 (Fed. Cir. 1999).....	7

**OTHER AUTHORITIES**

<i>American Heritage Dictionary</i> 979 (2d College ed. 1991).....	3
--	---

## INTRODUCTION

The basic divide between the parties' approach to claim construction is this: Saba argues that a phrase as to which there is no evidence of common usage requires resort to surrounding claim language and the specification to properly interpret, regardless of whether the phrase's constituent words are individually definable. IP Learn, on the other hand, waffles. IP Learn acknowledges that *some* phrases — "inference engine" and "pre-requisite analyzer" — need construction and therefore require resort to the specification. IP Learn maintains, however, that other phrases — for example, "complexity-hierarchy" — require no construction. IP Learn has provided no distinction between these classes of phrases, and Saba can find none. Saba has therefore offered the Court constructions that are consistent with *both* the common meaning of the words involved in each phrase *and* the context of the patents' claim and specification language.

In this briefing, however, Saba has attempted to narrow the field of disputed constructions as much as possible. Had IP Learn made clear the basis for its objections to Saba's constructions during the meet and confer process, some of the briefing could have been avoided. After reviewing IP Learn's opening brief, Saba has concluded that there are more areas of agreement than originally contemplated. Such agreements are noted below.

As the Court is well familiar with the principles of claim construction, Saba will not repeat them here, other than to reference Section I of Saba's Opening Brief on the Initial Claim Construction of IP Learn's Patents, filed January 6, 2003.

## ARGUMENT

### I. SABA'S CONSTRUCTION OF THE DISPUTED TERMS

#### A. "Relationship Rules"

**Definition:** The term "relationship rule" means "*a rule that defines the connections between a student's level of understanding in one area of learning and the student's level of understanding in another of area of learning (e.g., 'If a student is weak in algebra, then the student is weak in geometry.')*".

1 As with many of the terms before the Court for construction, IP Learn argues only that the  
 2 constituent words of this phrase are susceptible to definition, and provides the Court with no  
 3 evidence that the whole phrase has any commonly understood meaning, either generally or within  
 4 the industry relevant to the patents in suit. Accordingly, Saba believes that the proper  
 5 construction of this phrase requires examination of the specification.

6 The central definitional dispute appears to be whether “relationship rules” apply to a  
 7 student’s understanding in an area of learning, as opposed to some *a priori* connection between  
 8 areas of learning. Each of the examples IP Learn provided in its briefing illustrate that  
 9 relationship rules are used to connect a student’s level of understanding in one area of learning  
 10 and the student’s level of understanding in another of area of learning. The Horn’s clauses  
 11 quoted at 6:9-11 of the ’486 patent<sup>1</sup> connect a student’s grade in one area of learning (integers)  
 12 with a student’s grade in other areas (addition and subtraction; multiplication and division;  
 13 factorization; and common division). The same is true of IP Learn’s second example (“Weak in  
 14 algebra implies weak in geometry . . .”). (’486 patent at 6:21-24.)

15 There also appears to be some dispute concerning: (i) Saba’s use of the word  
 16 “connections” in place of “relationships;” and (ii) IP Learn’s claim that Saba’s construction  
 17 excludes one-to-many connections, limiting “relationship rules” instead to one-to-one  
 18 connections. First, the word “connections” conveys a clearer sense of the scope of the patent, for,  
 19 as IP Learn itself concedes, “relationship” is an “extremely broad concept” that covers such  
 20 things as “the rules of dating.” (IP Learn’s Opening Brief at 5:21-23.) As to the second point,  
 21 Saba did not intend its construction to so limit the patent (IP Learn never informed Saba of this  
 22

---

23 <sup>1</sup> U.S. Patent No. 5,779,486 (issued Jul. 14, 1998), attached as Exhibit B to IP Learn’s  
 24 Opening Brief on the Second Claim Construction of IP Learn’s Patent, filed June 26, 2003 (“IP  
 25 Learn’s Opening Brief”), is referred to throughout as the “’486 patent.” The ’486 patent along  
 26 with U.S. Patent Nos. 5,934,909 (issued Aug. 10, 1999) (“’909 patent,” attached as Ex. C to IP  
 27 Learn’s Opening Brief) and 6,118,973 (issued Sept. 12, 2000) (“’973 patent,” attached as Ex. D to  
 28 IP Learn’s Opening Brief) are together referred to as the “’486 family.” U.S. Patent No.  
 6,126,448 (issued Oct. 3, 2000), attached as Ex. E to IP Learn’s Opening Brief, is referred to  
 throughout as the “’448 patent.” Finally, U.S. Patent No. 6,398,556 (issued June 4, 2002),  
 attached as Ex. F to IP Learn’s Opening Brief, is referred to as the “’556 patent.”

objection during the parties' meet and confer sessions), and Saba would therefore consent to the replacement of "area" with "area or areas" in its construction.

### B. "Pre-requisite Rules"

**Definition:** The phrase "pre-requisite rule" means "*a rule that classifies 'line-items' into a hierarchy in which a more-difficult 'line-item' cannot be reached until a less-difficult 'line-item' is first mastered.*"

There appears to be no debate that a "pre-requisite" is "[r]equired as a prior condition to something." See Joint Claim Construction Statement, filed June 16, 2003, at 3 (IP Learn's dictionary definition, taken from *American Heritage Dictionary* 979 (2d College ed. 1991)). The question, however, is what a "pre-requisite rule" is. Like "relationship rule," IP Learn presents no evidence that this combination of words has any understood meaning, either generally or in the art particular to the patent. Again, to define the phrase, resort to the specification is necessary.

The central dispute between the parties is whether "pre-requisite rules" are tied to the "complexity-hierarchy." The patent claims and specification make clear that "pre-requisite rules" are rules used to establish a hierarchy (specifically, a "complexity-hierarchy," defined below) in which more difficult elements of the hierarchy ("line-items" in the lingo of the patent) cannot be reached until easier elements are first mastered. ('486 patent at 9:54-10:5, 10:13-17, 32-34, 64-67 & 11:33-43.) This comports with the common understanding of pre-requisites and of hierarchies.

IP Learn objects to linking "pre-requisite rules" and a "complexity-hierarchy." Every instance of "pre-requisite rules" is explicitly so linked, however. ('486 patent, Claims 13, 14, 36 & 40; '909 patent, claims 11 & 21.) In objecting to this linkage, IP Learn points to Claim 11 of the '909 patent, from which IP Learn quotes only "and the analysis rules include pre-requisite rules." ('909 patent at 23:16.) The *very next clause*, however, makes clear that a "complexity-hierarchy" is established "based on [said] pre-requisite rules." (*Id.* at 23:17-20.)

IP Learn also objects to the inclusion of the concept of "mastery" in Saba's proposed construction. IP Learn points out that the specification discloses an embodiment in which the student's objective is only a "decent understanding" of the topic, and that in such an embodiment the student is allowed to advance up the complexity-hierarchy after obtaining only a "grade B or

above in level 5” of the topic. (’486 patent at 11:36-43.) IP Learn’s citation demonstrates only that the patent contemplates varying levels of achievement before a pre-requisite is satisfied. It does not negate — indeed, it supports — the notion that pre-requisite rules establish the level of achievement necessary to advance from one line-item to the next. Saba does not claim that the term “mastery” in its construction requires in every instance a 100% score, and Saba’s construction is therefore perfectly consistent with the specification.

### C. “Inference Engine”

After reviewing IP Learn’s briefing on this term, Saba consents to the construction offered by IP Learn, in the interest of narrowing the issues genuinely in dispute. It is worth noting, however, that IP Learn here concedes that a phrase created by combining otherwise well-understood words (“inference” and “engine”) requires construction through resort to the specification.

### D. “Pre-requisite Analyzer”

**Definition:** The term “pre-requisite analyzer” means “*an apparatus that: (i) applies a complexity-hierarchy to a student’s test scores to determine a student’s level of understanding in each tested ‘line-item’; and (ii) on that basis makes recommendations (e.g., ‘You need to study double-digit addition more before you can move on to triple digit addition.’).*”

IP Learn again concedes that resort to the specification is necessary to define this term. Saba has taken its construction from the definitional language included in the specification under the heading “summary of the invention:”

The pre-requisite analyzer accesses pre-requisite rules, which, based on the complexity levels of the line items, determines a complexity-hierarchy among the line-items. Then, applying the complexity-hierarchy to the test results table, the pre-requisite analyzer determines the student’s level of understanding in the subject to provide recommendations for the student which, for example, suggest the student to work on one line-item.

(’486 patent at 2:35-44.)<sup>2</sup>

---

<sup>2</sup> In light of IP Learn’s briefing and the objections contained therein (none of which were conveyed during meet and confer), however, Saba would consent to the replacement of “*determine a student’s level of understanding in each tested ‘line-item’*” with “*determine a student’s level of understanding in the tested subject.*”

1 The parties' dispute again appears to center on whether a "pre-requisite analyzer" and a  
 2 "complexity-hierarchy" are always found together. IP Learn cites specification language that  
 3 suggests that they are not. ('486 patent at 18:53-56.) *Every claim*, however, explicitly links the  
 4 two. ('486 patent, Claims 13, 14, 36 & 40; '909 patent, claims 11 & 21.) There is apparently,  
 5 then, no claim that implements the alternative embodiment cited by IP Learn.

#### 6 E. "Subject-specific"

7 **Definition:** The term "subject-specific" means "*pertaining to a particular area of*  
 8 *learning.*"

9 The parties' constructions focus on different portions of "subject-specific." Saba's  
 10 construction focuses on clarifying what is meant by "subject." "Subject" in this context could  
 11 plausibly be read to refer to one of two things: (i) the "subject" being tested (*i.e.*, the student); or  
 12 (ii) the "subject" being taught (*e.g.*, mathematics). To say that a rule is "subject-specific" might  
 13 therefore mean either that it is specific to the test-taker or that it is specific to the area of learning  
 14 being taught. The specification is quite clear, however, that "subject" means such things as  
 15 "mathematics, English, history, geography, physics, chemistry and biology." ('486 patent at  
 16 14:60-62; *compare id. with* 9:35-36 (referring to rules specific to a test-taker as "student-  
 17 specific").) As IP Learn's construction retains the word "subject," it preserves this ambiguity.  
 18 Saba's proposed definition corrects it.

19 IP Learn's construction instead focuses on "specific," defining that portion of the phrase  
 20 as "special, distinctive, or unique to." Saba cannot discern any dispositive differences between  
 21 that construction and "pertaining to," and would therefore consent to "*special, distinctive, or*  
 22 *unique to a particular area of learning*" as the construction for "subject-specific."

#### 23 F. "Analyzing the student's prior-to-the-latest and latest test results"

24 **Definition:** The term "analyzing the student's prior-to-the-latest and latest test results"  
 25 means "*analyzing the student's prior-to-the-latest and analyzing the student's latest test results.*"

26 This phrase was the subject of considerable dispute between the parties during the recent  
 27 summary judgment proceedings. During the course of those proceedings, IP Learn maintained  
 28 that the phrase "analyzing the student's prior-to-the-latest and latest test results" read on the



1 analysis of a single summed score (of multiple test results). Saba argued in response that the only  
 2 analysis done in such a circumstance was on a single, total score, and that no analysis of *both* the  
 3 student's prior-to-the-latest and the student's latest test results took place.

4 Saba's construction takes a step toward resolving this apparent ambiguity in the claim  
 5 language, by simply making clear that the patents claim an invention in which both the "prior-to-  
 6 the-latest" test results and the "latest" test results are subjected to analysis. Such a construction is  
 7 entirely consistent with the patent. For example, Figure 4 illustrates that "prior-to-the-latest" test  
 8 results and the "latest" test results are separate entities that must be accessed separately. (*See also*  
 9 '486 patent at 2:22-26, 8:22-25.) Such a construction is also consistent with the proper meaning  
 10 of the word "and" in the construed phrase. *See, e.g., Northern Telecom Ltd. v. Samsung Elecs.*  
 11 *Co.*, 215 F.3d 1281, 1291-92 (Fed. Cir. 2000) (holding that "etching of aluminum and aluminum  
 12 oxide" requires that "both aluminum and aluminum oxide must be etched").

### 13 G. "Complexity-hierarchy"

14 **Definition:** The term "complexity-hierarchy" means "*a classification system of each*  
 15 *'line-item' within a subject, such that mastery of a less-difficult 'line-item' is a necessary prior*  
 16 *condition to advancing to a more-difficult 'line-item.'*"

17 IP Learn maintains, without support, that "complexity-hierarchy" is a well-understood  
 18 phrase that should be construed according to its ordinary meaning. That the words "complexity"  
 19 and "hierarchy" are both words whose meaning can be resolved by reference to dictionaries does  
 20 not mean that when combined they retain their simplicity, any more than it would were the patent  
 21 to claim a system of "peanut-butter-sandwich-hierarchies." Indeed, IP Learn has conceded that  
 22 similar combinations of definable words — "inference engine" and "pre-requisite analyzer" —  
 23 have no commonly understood meaning and therefore require resort to the specification.

24 Rather, "complexity-hierarchy" is an unusual phrase as to which this Court has no  
 25 evidence of common usage, and which will provide little guidance to a jury as to the scope of the  
 26 patent absent some explication. It is therefore appropriate to examine the claim language and  
 27 specification to aid in the construction of this phrase. On this point, the specification helpfully  
 28 provides definitional language without the typical "in one embodiment" hedge:

The complexity-hierarchy describes the pre-requisites, and the grade or mastery that a student achieves for each pre-requisite before the student can advance to the next level of complexity. In order for the student to advance to a line-item, the student has to satisfy all of the pre-requisites of that line-item according to the complexity-hierarchy.

(’486 patent at 10:3-8.) Saba’s definition appropriately captures this passage. The primary dispute again appears to be Saba’s inclusion of the concept of “mastery” in its proposed construction. The appropriateness of this construction is addressed above in Section I.B (“Pre-Requisite Rules”).

IP Learn also provides a new construction, which it offers here for the first time by way of footnote. (IP Learn’s Opening Brief at p. 22, fn. 7.) This construction is inconsistent with the specification in that it fails to capture the hierarchical nature of the “complexity-hierarchy,” requiring only that areas of learning be placed into “an arrangement.”

## II. PREAMBULAR LANGUAGE

“In general, a preamble limits the invention if it recites essential structure or steps, or if it is ‘necessary to give life, meaning, and vitality’ to the claim.” *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (quoting *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999)). “[W]hen the claim drafter chooses to use both the preamble and the body to define the subject matter of the claimed invention, the invention so defined, and not some other, is the one the patent protects.” *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 620 (Fed. Cir. 1995).

The critical question is whether the preambles define terms that are later used in the body of the claims. The preambles from the ’486 family and the ’448 patent do, and they are therefore limitations. Indeed, the authors of the ’486 family of patents chose to use the preambles to provide three different classes of definitions for terms used in the body of the claims.<sup>3</sup>

---

<sup>3</sup> Curiously, IP Learn nowhere addresses Saba’s contention that the preambular language of the ’486 family is a limitation, despite the fact that this issue was briefed during the recent summary judgment proceedings and identified in the parties’ Joint Claim Construction Statement. Perhaps IP Learn meant its concession in footnote 8 that “some of the language in some of the preambles could be limiting” to cover the ’486 family.

(i) One class of claims defines “latest test results” as the results “from the latest test taken by the student:”

Claim	Preambular Language
'486: 1	An educational system for assessing a student's understanding in a subject, the system, using latest test results from the latest test taken by the student and the prior-to-the-latest test results, comprising:
'909: 1	A computer-aided learning method for assessing a student's understanding in a subject, the method, using test results from the latest test and the prior-to-the-latest test results taken by the student, comprising the steps of:
'973: 1	A computer-aided learning method for assessing a student's understanding in a subject, the method, using test results from the latest test and the prior-to-the-latest test results taken by the student, comprising the steps of:
'973: 24	A computer-aided learning system for assessing a student's understanding in a subject, the system, using test results from the latest test and the prior-to-the-latest test results taken by the student, comprising:

(ii) Another class defines the “subject” taught as one that “is divided into line-items with at least one line-item being more difficult than another line-item.”<sup>4</sup>

Claim	Preambular Language
'486: 54	An educational system for assessing a student's understanding in a subject, which is divided into line-items with at least one line-item more difficult than another line-item, the system, using latest test results from the latest test taken by the student, comprising:
'909: 21	A computer-aided learning method for assessing a student's understanding in a subject, which is divided into line-items with at least one line-item being more difficult than another line-item, the method, using the student's test results on the subject, comprising the steps of:
'909: 23	A computer-aided learning method for assessing a student's understanding in a subject, which is divided into line-items with at least one line-item being more difficult than another line-item, the method, using the student's test results of the subject, comprising the steps of:
'909: 29	A computer-aided learning method for assessing a student's understanding in a subject, which is divided into line-items with at least one line-item more difficult than another line-item, the method, using latest test results from the latest test taken by the student, comprising the steps of:
'973: 19	A computer-aided learning method for assessing a student's understanding in a subject, which is divided into line-items with at least one line-item being more difficult than another line-item, the method, using the student's test results of the subject, comprising the steps of:

<sup>4</sup> Note further that half of this class defines “latest test results” as above (“from the latest test taken by the student” — '486: 54; '909: 29; '973: 23) and half makes another definition (“test results of the subject” — '909: 21; '909: 23; '973: 19).

Claim	Preambular Language
'973: 23	A computer-aided learning method for assessing a student's understanding in a subject, which is divided into line-items with at least one line-item more difficult than another line-item, the method, using latest test results from the latest test taken by the student, comprising the steps of:

(iii) A final class again defines the "subject" taught as one that "is divided into line-items with at least one line-item more difficult than another line-item" and further defines the "latest test results" as results coming from a "test including questions from more than one line-item:"

Claim	Preambular Language
'973: 20	A computer-aided learning method for assessing a student's understanding in a subject, which is divided into the line-items with at least one line-item being more difficult than another line-item, the method, using the latest test results from the latest test taken by the student, with the latest test including questions from more than one line-item, comprising the steps of:
'973: 25	A computer-aided learning system for assessing a student's understanding in a subject, which is divided into the line-items with at least one line-item being more difficult than another line-item, the system, using the latest test results from the latest test taken by the student, with the latest test including questions from more than one line-item, comprising:

Each of the preambles detailed above therefore "gives life" to the claim by forming the antecedent basis for the claim language (*i.e.*, "subject," "latest test results") that follows it, distinguishing the meaning of that language from claim to claim.

The preambular language from the '448 patent is likewise the antecedent basis for the claim language that follows it:

Claim	Preambular Language
'448: 1	A computer-aided learning method for helping a user regarding a job in a company, the method comprising the steps of:
'448: 35	A computer-aided apparatus for helping a user, who is associated with a company, regarding a job in the company, based on a job position related to the user, the apparatus comprising:

The claim language of the '448 patent regularly refers to "*the* user." ('448 patent at 11:51, 13:64-65 (emphasis added).) The preambular language defines said "user" — in the case of Claim 1, as a user who the patented invention helps "regarding a job in a company," and in the case of Claim 35, as a user "who is associated with a company" who the patented invention helps "regarding a job in a company."

The definitional language contained in the preambles of the '486 family and the '448 patent stands in contrast to the preambular language of the '556 patent, and Saba therefore no longer contends that the preambles of the '556 patent should be interpreted as limitations. The '556 patent's preambles read:

Claim	Preambular Language
'556: 1	A computer-aided learning method for a user comprising the steps of:
'556: 53	A computer-aided learning method for a user comprising the steps of:

Unlike the '486 family and the '448 patent, these preambles provide no antecedent basis for any term or phrase in the body of the '556 patent — though the claim language does refer to “the user” like the '448 patent, the preamble provides no additional specificity as to what constitutes such a user.

**CONCLUSION**

For the foregoing reasons, Saba respectfully requests that this Court adopt the constructions detailed in the “Saba’s Proposed Constructions” column of the parties’ Joint Claim Construction Statement and further find that the preambular language from the claims in the '448, '486, '909, and '973 patents represent claim limitations.

Dated: July 10, 2003

MICHAEL A. JACOBS  
WESLEY E. OVERSON  
FREDERICK S. CHUNG  
DAVID E. MELAUGH  
MORRISON & FOERSTER LLP

By: s/Michael A. Jacobs  
Michael A. Jacobs

Attorneys for Defendant  
SABA SOFTWARE, INC.